

AMENDMENTS TO THE CLAIMS

This Listing of Claims will replace all previous versions presented in this application:

Claims 1 -6 (Canceled).

Claim 7 (Currently Amended). A method for identifying substances that modulate the nuclear translocation of an armadillo protein, comprising:

(a) providing a culture of cells that express said armadillo protein and a mutant ~~presenilin~~ PS1 protein, or a functional fragment thereof, wherein the mutant ~~presenilin~~ PS1 protein, or functional fragment thereof binds said armadillo protein, and wherein the mutant PS1 protein comprises at least one mutation relative to a normal PS1 protein, wherein the normal PS1 protein has an amino acid sequence of SEQ ID NO. 1;

(b) contacting said culture with a test substance;

(c) inducing nuclear translocation of said armadillo protein in said cells; and

(d) measuring levels of nuclear armadillo protein as compared to a first control as an indication of modulatory activity of said test substance.

Claim 8 (Original). The method of claim 7, wherein said armadillo protein is β -catenin.

Claim 9 (Currently Amended). The method of claim 7, wherein said armadillo protein is ~~hNPRAP~~ human Neural Plakophilin Related Armadillo Protein.

Claim 10 (Original). The method of claim 7, wherein said armadillo protein is p0071.

Claim 17 (Currently Amended). The method of claim 7, ~~wherein said control comprises cells expressing a wild-type presenilin~~ further comprising comparing the levels of nuclear armadillo protein to a second control comprising cells expressing a wild-type PS1 protein and said armadillo protein.

Claim 18. (Withdrawn) A method for screening individuals for presenilin alleles associated with Alzheimer's Disease or related disorders, comprising:

(a) obtaining cells from an individual to be tested for Alzheimer's Disease or a related disorder;

(b) inducing nuclear translocation of an armadillo protein in said cells; and

(c) measuring levels of said nuclear armadillo protein as compared to a control as an indication of the presence or absence of presenilin alleles associated with Alzheimer's Disease or a related disorder.

Claim 19. (Withdrawn) The method of claim 18, wherein (b) comprises culturing said cells in the presence of a lithium salt.

Claim 20. (Withdrawn) The method of claim 18, wherein said control comprises cells that express normal presenilin and said armadillo protein.

Claim 21. (Withdrawn) The method of claim 18, wherein said armadillo protein is β -catenin.

Claim 22. (Withdrawn) The method of claim 18, wherein said armadillo protein is hNPRAP.

Claim 29 (New). The method of claim 24, wherein said cells are selected from the group consisting of fibroblasts, leukocytes, neuronal cells, human embryonic kidney cells and *D. melanogaster* cells.

Claim 30 (New). The method of claim 24, further comprising comparing the levels of nuclear armadillo protein to a second control comprising cells expressing a wild-type PS2 protein and said armadillo protein.